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x THE COLONIZATION OF PARASITES OF THE EUROPEAN CORN BORER
IN THE UNITED STATES IN 1946^{1/}

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During the 1946 season 407,028 adult parasites of the European corn borer were released in the United States. The five species released were: the tachinid, Lydella stabulans var. grisescens R.-D., the ichneumonid, Horogenes punctorius (Roman), the braconids, Chelonus annulipes Wesm., and Macrocentrus gifuensis Ashm., and the chalcid, Eulophus viridulus Thoms. The first four species listed were obtained from collections of overwintering corn borer larvae made in the Eastern States where these exotic parasites are now well established and abundant. E. viridulus was received through the courtesy of the Dominion Parasite Laboratory at Belleville, Ontario, Canada.

Parasites were released in the following 15 States: Delaware, Illinois, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Minnesota, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, and Wisconsin. Table 1 summarizes the total releases of each of the 6 species in the various States.

The parasite liberations in 1946 bring the total numbers of exotic parasites released in the United States as an aid in control of the European corn borer, from the inception of this work to date, to 7,232,138. Table 2 summarizes all these releases by States and species to December 31, 1946.

^{1/} Financial aid for the conduct of the parasite program was contributed by the following State agencies: The departments of agriculture of Iowa and Wisconsin and the agricultural experiment stations of Delaware, Indiana, Maryland, and Wisconsin. The following State agencies assisted in the release of parasites: The agricultural experiment stations of Delaware, Indiana, Iowa, Kentucky, Maryland, New York, Ohio, and Wisconsin; the Illinois Natural History Survey, and State departments of agriculture of Iowa, Minnesota, and New Jersey.

^{2/} Resigned April 30, 1946.

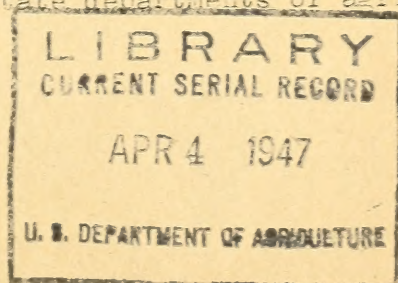


Table 1.--Numbers of parasites of the European corn borer released in the United States in 1946

State	Chelonus annulipes Wesm.	Eulophus viridulus Thoms.	Inareolata punctorius (Roman)	Lydella stabulans var. grisescens R.-D.	Macrocentrus gifuensis Ashm.	Total
Delaware	326	6,000	1,487	393	17,663	25,869
Illinois	296	2,961	1,429	2,978	34,896	42,560
Indiana	280	-	893	2,948	31,812	35,933
Iowa	526	4,984	3,067	12,578	143,051	164,206
Kentucky	-	902	411	488	2,397	4,198
Maryland	296	5,833	1,991	1,938	26,244	36,302
Massachusetts	-	1,729	-	-	-	1,729
Minnesota	-	1,300	835	1,979	6,550	10,664
New Jersey	-	8,507	1,052	-	12,504 ^{1/}	22,063
New York	-	1,586	1,449	3,202	12,523	18,760
North Carolina	-	-	481	-	1,964	2,445
Ohio	-	-	937	994	4,908	6,839
Pennsylvania	-	3,994	999	-	3,898	8,891
Virginia	-	-	-	-	3,913	3,913
Wisconsin	-	-	1,462	1,944	19,250	22,656
Total	1,724	37,796	16,493	29,442	321,573	407,028

^{1/} Some of these releases were made incidental to experiments on methods of handling parasites for shipment.

State	Apanteles sp.	Apanteles thompsoni Lyle	Apomyza matis Hels.	Bracon atricornis (Smith)	Camponotus multicinctus Gray.	Camponotus pyrenastae Smith	Chelonus annulipes Weism.	Cremastus flavo-orbitalis (Cameron)	Eulimneria alkae (Elli. & Saecht.)	Eulophus viridulus Thoms.	Exeristes roborator (Fab.)
Connecticut	-	21,268	178	12	-	1	54,105	1,483	1,057	17,200	-
Delaware	-	-	-	-	-	-	2,229	-	-	6,000	-
Illinois	-	-	-	-	-	-	1,381	-	-	2,961	2,302
Indiana	-	5,700	8	-	-	-	7,015	-	5,161	6,671	22,305
Iowa	-	-	-	-	-	-	2,510	-	-	10,520	-
Kentucky	-	-	-	-	-	-	-	-	-	902	-
Maine	-	-	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	3,276	-	-	5,833	-
Massachusetts	388	69,139	514	127	1,129	1,697	16,010	6,762	23,526	86,515	54,357
Michigan	-	34,837	395	-	-	-	6,363	-	24,075	44,037	86,507
Minnesota	-	-	-	-	-	-	-	-	-	3,000	-
New Hampshire	-	-	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	9,585	1,192	-	8,507	-
New York	3	51,106	463	-	61	16	137,821	1,109	9,279	57,341	40,050
North Carolina	-	-	-	-	-	-	-	-	-	-	-
Ohio	-	52,505	1,664	-	357	38	22,952	5,145	36,398	101,648	87,826
Pennsylvania	-	5,774	20	-	-	-	-	-	550	3,994	20,119
Rhode Island	-	11,756	188	211	123	47	7,523	1,014	4,636	7,446	-
Vermont	-	-	-	-	-	-	6,982	-	-	-	-
Virginia	-	-	-	-	-	-	11,388	2,971	-	-	-
Wisconsin	-	-	-	-	-	-	701	-	-	1,850	-
Total	391	252,085	3,430	350	1,670	1,799	283,841	19,676	109,682	364,425	314,766

Table 2.--(Continued)

State	Horoglyphes (Roman)	Lydella stabulans var. erisescens R-D.	Macrocentrus altuensis Ashm.	Microbrachon brevicornis (Wesm.)	Microgaster tibialis Wesm.	Memorilla floralis Fall.	Phaeogenes nigridens Wesm.	Phorcera erecta Coq.	Pseudoparachaeta roseanae B. and M.	Total
Connecticut	6,882	42,723	23,970	4,952	7,101	533	1,620	193	7,754	191,032
Delaware	3,959	3,179	81,789	-	-	-	-	-	-	97,156
Illinois	4,284	12,193	111,147	3,635	-	-	-	-	-	137,903
Indiana	9,456	32,174	102,447	105,109	8,985	-	-	-	8,526	314,157
Iowa	11,310	26,036	311,768	-	-	-	500	-	-	362,644
Kentucky	899	1,451	12,627	-	-	-	-	-	-	15,879
Maine	-	1,927	-	-	-	-	-	-	-	1,927
Maryland	6,143	16,582	113,592	1,616	-	-	-	-	-	147,042
Massachusetts	30,938	92,087	82,444	1,084,590	84,689	371	21,885	844	64,755	1,728,367
Michigan	11,987	121,219	40,790	534,334	81,747	-	3,933	-	17,896	1,008,220
Minnesota	835	2,475	12,500	-	-	-	-	-	-	18,810
New Hampshire	593	5,569	-	-	-	-	-	-	-	6,162
New Jersey	4,349	9,111	92,702	11,857	1,809	-	4,037	-	-	143,149 1/2
New York	17,994	126,319	101,848	354,265	34,752	-	569	4	29,743	962,743
North Carolina	481	902	7,889	-	-	-	-	-	-	9,272
Ohio	45,488	219,902	146,695	587,583	138,585	843	8,306	499	32,334	1,488,768
Pennsylvania	2,790	13,579	89,627	127,305	6,842	-	347	-	3,800	274,747
Rhode Island	14,572	35,293	39,182	-	19,740	-	12,037	-	9,305	163,073 1/2
Vermont	2,279	9,813	-	-	-	-	-	-	-	19,074
Virginia	4,325	8,148	58,205	5,157	3,199	-	-	-	-	93,393
Wisconsin	3,182	5,062	37,817	-	-	-	-	-	-	48,512
Total	182,746	785,744	1,467,039	2,820,403	387,449	1,747	53,234	1,540	174,113	7,232,130

1/ 20 adults of Pasus agilis Cress. and Labronychus prismaticus Nort., both native species were also released in New Jersey.

2/ 8 individuals of Peteores nigricolis Thoms. were also reported from Rhode Island.